

NEW DESCRIPTIONS AND DISTRIBUTIONAL RECORDS FOR EASTERN NORTH AMERICAN CADDISFLIES (TRICHOPTERA)¹

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ABSTRACT: A new caddisfly species *Glossosoma spinatum* (Glossosomatidae) is described from Newfoundland and Quebec. The female of *Rhyacophila acutiloba* (Rhyacophilidae) is described for the first time. New distributional records and notes for 19 caddisfly species are presented.

Twenty-two species of *Glossosoma* were listed from North America by Morse (1993). The following new species of *Glossosoma* is the first member of the subgenus *Diploglossa* Martynov in the *Eomystra* line of Ross (1956) reported from North America.

Glossosoma spinatum NEW SPECIES

Description: Structure typical for genus. Color dark brown (all specimens in alcohol). Length from front of head to apices of folded forewings 6-7 mm. Male (Figs. 1-2): Abdominal sternite VI with short, broadly rounded ventromesal process. Sternite VII with small, acute ventromesal process. Tergum X divided mesally into two lateral lobes with dorsolateral margins composed of numerous spines directed caudad and ventrolateral portion lobate, cupped mesally. Inferior appendages each divided into two long, slender lobes, with mesal lobe directed dorsolaterally; lateral lobe directed caudomesally. Phallus large, vasiform, with the dorsal branch having dorsal spinous lobe; phallicata membranous.

Female (Figs. 3-6): Abdominal sternite VI with short, acute ventromesal process. Sclerotized portion of segment VIII with dorsal margin about twice length of ventral margin in lateral view; anteroventral surface divided mesally by membranous area. Vaginal apparatus very long, narrow; essentially membranous, with a single long, faint sclerite anteriorly and three faint sclerites posteriorly.

Immature stages unknown.

Diagnosis: The male is distinguished from all North American *Glossosoma* species by the numerous lateral spines of the mesally split tergum X; the female by the short, ventrally divided, eighth segment. The male can be distinguished from the closely related Eurasian *Glossosoma nylanderi* McLachlan, by the numerous, relatively short and nearly subequal spines of tergum X; the relatively short, broadly rounded ventral lobe of the tergum X; and the subequal lobes of each inferior appendage (see Martynov 1934, Ross 1956, Malicky 1983, and Vshivkova 1986 for figures of *G. nylanderi*). The female can be separated from *G. nylanderi* by the essentially membranous vaginal apparatus, and fewer setae along the distal margin of segment VIII.

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Holotype male - Newfoundland: South Branch Grand Codroy River, Highway 1, NW South Branch, 5 June 1998, R.W. Baumann and B.C. Kondratieff. Allotype female: same data. Holotype and allotype deposited at the National Museum of Natural History. Seven paratype males and females, same data, deposited as follows: 1M 1F: Royal Ontario Museum; 1M 1F: Illinois Natural History Survey; 1M: BYU; 1M: CSU; 1M: DER.

Additional material examined: Quebec: Riviere St. Anne, Beaupre, 15 June 1997, B.C. Kondratieff and R.W. Baumann. 1M (CSU). Newfoundland: Humber River, NE Cormack, 8 June 1998, B.C. Kondratieff & R.W. Baumann. 1M 1F (DER). Newfoundland: Rocky Brook, Reidville Road, N Deer Lake, 8 June 1998, R.W. Baumann & B.C. Kondratieff. 1M (BYU).

***Rhyacophila acutiloba* Morse & Ross, 1971**

Rhyacophila acutiloba was described from males collected in New Hampshire (Morse & Ross 1971). Prather et al. (1997) reported additional collections from MA, ME, NC, NY, SC, VA, VT, WV, and indicated the female was still unknown. The following description is based on females from New York (Hamilton County, West Stony Creek, Highway 30, north of Great Sacandaga Lake, B.C. Kondratieff and R.W. Baumann, 5 June 1997, 3M 5F (CSU), 2M 5F (DER).

Female genitalia (Figs. 7-11): In lateral view, posterior margin of segment VIII strongly concave and dorsal margin with distinct bump; in dorsal view, dorsoposterior margin indented and ventroposterior margin broadly convex, extending caudad beyond dorsal margin. Posterior process of vaginal apparatus cleft mesally.

Additional records and notes on Eastern North American Caddisflies

The following appear to be new province/state records for eastern North American caddisflies. Material is deposited in the following collections: C.P. Gillette Museum of Arthropod Diversity, Colorado State University (CSU); Monte L. Bean Museum, Brigham Young University (BYU); Stephen R. Moulton (SRM); author's collection (DER).

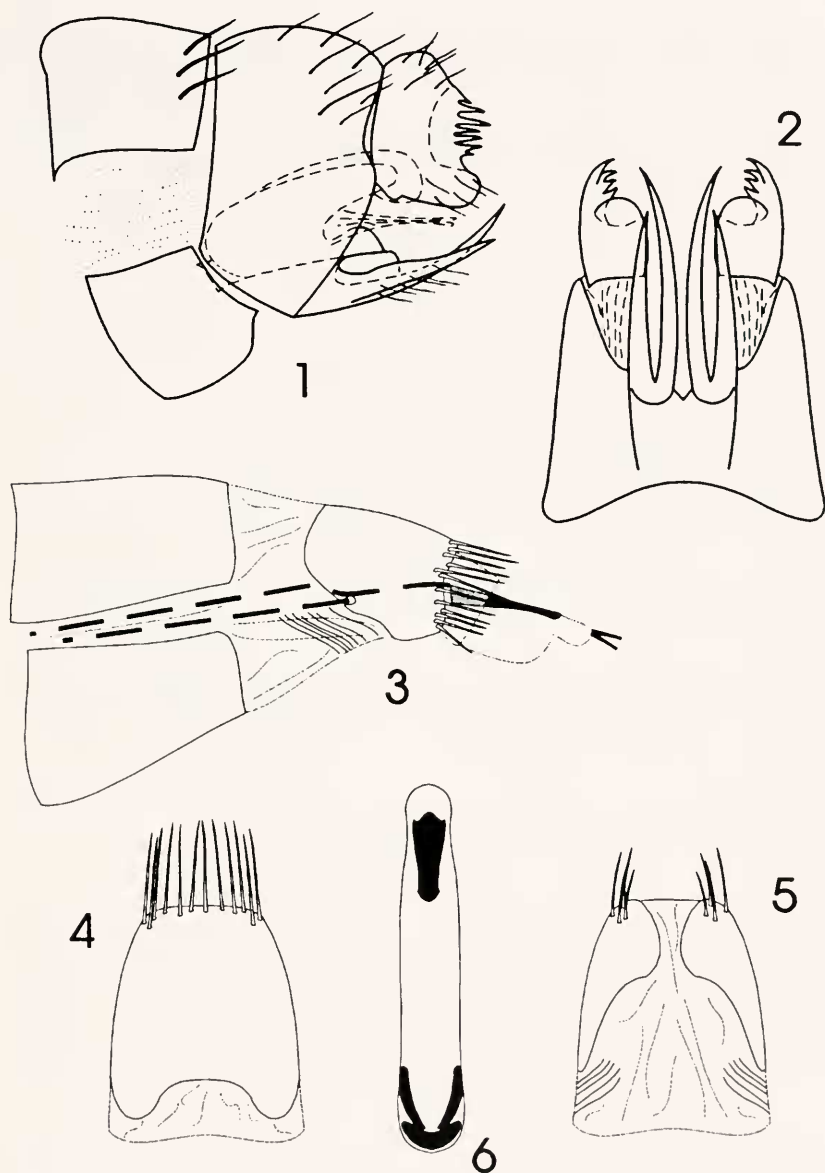
Micrasema bennetti Ross 1947 - TENNESSEE: Sumner County, Bledsoe Creek, junction of 31E and Route 231, R.F. Kirchner and B.C. Kondratieff, 9 April 1994, 1M (CSU).

Micrasema rickeri Ross and Unzicker 1965 - TENNESSEE: Blount County, Middle Prong of the Little River, Little Creek Road, D.E. Ruiter, 15 May 1988, 2M1F (DER).

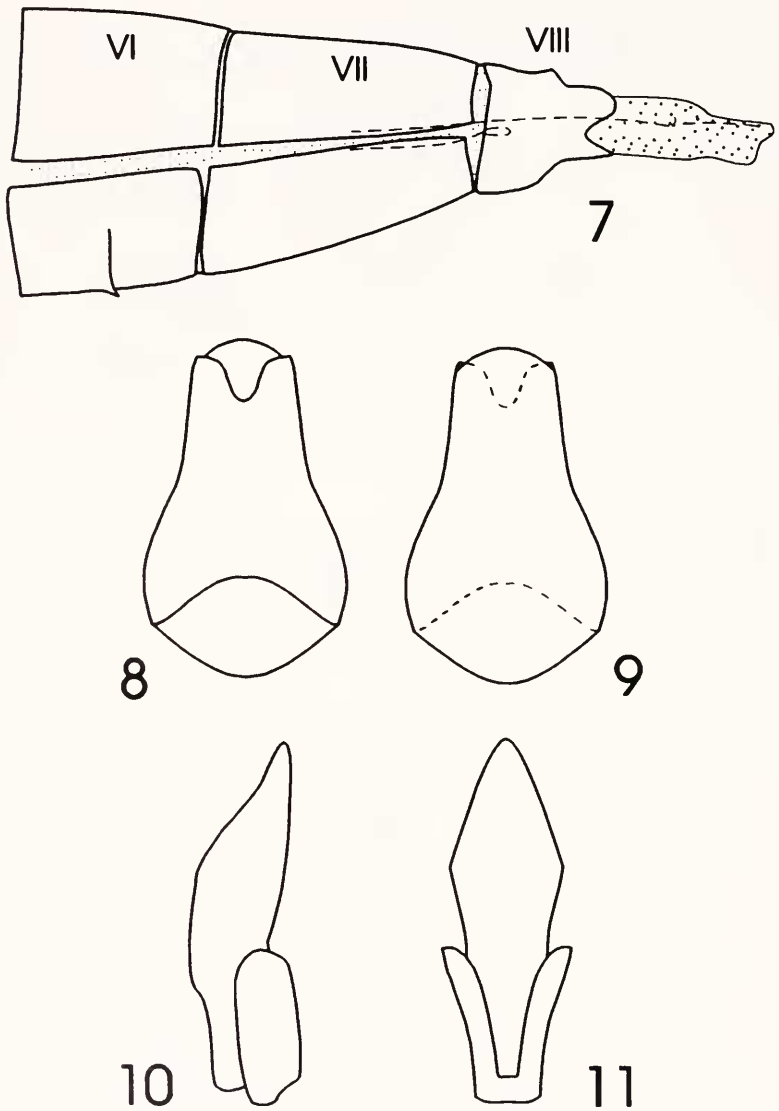
Micrasema sprulesi Ross 1941: MAINE: Penobscot County, stream between Garland and Exeter, on Route 143, D.E. Ruiter, 2 June 1987, 1M1F; Piscataquis County, West Gate of Baxter State Park, D.E. Ruiter, 1 June 1987, 5M (DER).

Cheumatopsyche helma Ross 1939 - ARKANSAS: Stone County, UV Light, North Sylamore Creek, Blanchard Spring Campground, B.J. Armitage, 3 June 1985, 2M (DER).

Cheumatopsyche pettiti (Banks) 1908 - NEW BRUNSWICK: York County, Pokiok Stream, Highway 635, below Lake George, B.C. Kondratieff and R.W. Baumann, 15 June 1993, 1M (CSU).



Figs. 1-6. *Glossosoma spinatum* - male terminalia: 1, lateral view; 2, ventral view; female terminalia: 3, lateral view; 4, dorsal view; 5, ventral view; 6, vaginal apparatus, ventral view.



Figs. 7-11. *Rhacophila acutiloba*, female terminalia: 7, lateral view; VIII segment, 8, dorsal view; 9, ventral view; vaginal apparatus: 10, lateral view, 11, ventral view.

Homoplectra doringa (Milne) 1936 - WEST VIRGINIA: Kanawka County, Buzzard Branch, 4 miles south of Prath, CR-83, B.C. Kondratieff and R.F. Kirchner, 28 May 1992, 1M (CSU); Mingo County, Laurel Creek, 2 miles east of Dingess, B.C. Kondratieff and R.F. Kirchner, 27 May 1993, 1M (CSU).

Hydropsyche frisoni Ross 1938 - WEST VIRGINIA: Mercer County, Bluestone River at Eads Mill, CR-3, B.C. Kondratieff and R.F. Kirchner, 27 May 1992, 1M (DER).

Oxyethira grisea Betten 1934 - NOVA SCOTIA: Yarmouth County, Clyde River, Highway 203, B.C. Kondratieff and R.W. Baumann, 24 June 1993, 7M6F (CSU).

Stactobiella palmata (Ross) 1938 - NOVA SCOTIA: Halifax County, Guys River, Highway 224 and 227, Carrol Corner, B.C. Kondratieff and R.W. Baumann, 23 June 1993, 1M (CSU).

Lepidostoma lydia Ross 1939 - OHIO: Scioto County, small tributary of Mackletree Creek, B.C. Kondratieff, 10 May 1988, 4M2F (CSU, DER).

Lepidostoma prominens (Banks) 1930 - WISCONSIN: Douglas County, Bois Brule River, Brule River State Forest, Route FF, B.C. Kondratieff, 20 August 1992, 2M1F (CSU, DER).

Lepidostoma reosum Denning 1954 - WEST VIRGINIA: Pendleton County, Seneca Creek, Judy Spring Trail, B.C. Kondratieff, R.F. Kirchner and J. Welch, 15 May 1990, 11M (CSU, DER). This appears to be a significant southwestern distribution extension.

Ironoquia kaskaskia Ross 1944 - ARKANSAS: Montgomery County, Rattlesnake Creek, 4 miles northeast of Caddo Gap, north of Road C52, T3S, R24W, sec. 33, H.W. Robison, 17 October 1996, 1M3F (SRM).

Molanna ulmerina Navas 1834 - NOVA SCOTIA: Hants County, Nine Mile River, Highway 14, Hardwood Lands, R.W. Baumann and B.C. Kondratieff, 23 June 1993, 1M1F (BYU).

Marilia flexuosa Ulmer 1905 - INDIANA: Kosciusko County, Lake Wawasee, B.C. Kondratieff, 2 July 1992, 1M (DER).

Banksiola dossuaria (Say) 1828 - WISCONSIN: Forest County, blacklight at dusk, Gliske Creek, 3/4 mile above Rice Lake, Mole Lake Reservation, Arin Davis, 12 August 1996, 1F (CSU).

Rhyacophila parantra Ross 1948 - MISSOURI: Franklin County, small stream, Meremac State Park, B.C. Kondratieff, 1 June 1990, 1M1F (CSU); WEST VIRGINIA: Mingo County, Laurel Creek, 2 miles east of Dingess, B.C. Kondratieff and R.F. Kirchner, 27 May 1993, 1M1F (DER).

Agarodes griseus Banks 1899 - NOVA SCOTIA: Hants County, Nine Mile River, Highway 14, Hardwood Lands, R.W. Baumann and B.C. Kondratieff, 23 June 1993, 1M (BYU).

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